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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,855	09/04/2003	Nicolas C. Rivron	1023-271US02	8584

28863 7590 12/22/2006  
SHUMAKER & SIEFFERT, P. A.  
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ST. PAUL, MN 55125

EXAMINER
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PELLEGRINO, BRIAN E

ART UNIT	PAPER NUMBER
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3738

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/22/2006	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/656,855

Applicant(s)

RIVRON ET AL.

Examiner

Brian E Pellegrino

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 11, 12 and 14-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11, 12 and 14-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5/19/06.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election without traverse of Species III in the reply filed on 10/3/06 is acknowledged.

### ***Specification***

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the method requiring applying a frictional force to the luminal surface in the absence of frozen liquid to lift nodes... was not found in the written disclosure.

### ***Claim Rejections - 35 USC § 102***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 11,12,14-17,19-22,31-34,36-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Sato (4596577). Sato discloses a vascular prosthesis that is a tube-shaped (Fig. 4) structure, col. 2, lines 65,66. Sato also describes the prosthesis is prepared using a mandrel (Gore patent), col. 3, lines 49-52. Sato discloses the luminal surface is rubbed with a brush having metal bristles (col. 3, lines 66,67) to lift nodes to some degree (see Fig. 3) to define a plurality of recesses. Sato additionally discloses the material for the vascular prosthesis is expanded polytetrafluoroethylene, col. 3, lines

34-36. Sato discloses a luminal surface and abluminal surface can be rubbed and thus is within the tube structure, col. 4, lines 29-32. The use of "substantially perpendicular to the nodes" is terminology of relative degree, which has no basis of comparison. For this reason, it is considered broad and relatively unlimited in how it can be interpreted, such that the prior can be construed to accomplish the limitation of rubbing this way. It can be construed that a pressurized fluid is applied to the surface and can be water, col. 3, lines 55-61. Sato also discloses both the luminal and abluminal surfaces can be rubbed and thus it would be inherent that the prosthesis is everted in the process of rubbing the other side after the first side is rubbed on the mandrel. The use of "substantially parallel to the axis of the prosthesis" is terminology of relative degree, which has no basis of comparison. For this reason, it is considered broad and relatively unlimited in how it can be interpreted, such that the rotary movement of Sato' brush device can be construed to accomplish the limitation of rubbing this way.

Claims 19,23,24-30,33-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Dzau et al. (6352555). Fig. 2 shows a vascular prosthesis (2) with a surface (6) including recesses (4) with cells 14 seeded thereon. Dzau et al. disclose the device is made of PTFE, col. 5, lines 11-13. Dzau discloses applying a frictional force to pass the medium through the lumen or parallel to the axis of the vascular prosthesis to sod the cells on the surface, col. 5, lines 57-62. This procedure is done in the absence of a frozen liquid. It is inherent that the force of the fluid causes the nodes to be lifted from the surface since recesses have been formed and the cells adhered and filled them. Dzau et al. also disclose methods of harvesting cells for the prosthesis, col.

5, lines 19-33. Dzau et al. additionally disclose that the cells harvested are endothelial or precursors of endothelial cells, col. 3, lines 13-22. It is inherent that the cells would be seeded less than 15 minutes after harvesting or they would not be viable much longer.

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 18,38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato '577. Sato is explained supra. However, Sato fails to explicitly disclose the vascular prosthesis is everted after rubbing. It would have been an obvious matter of design choice to modify the position of the rubbed surface, since applicant has not disclosed that using an everted prosthesis provides any advantage, or solves a stated problem, or is used for any particular purpose. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the rubbed prosthesis taught by Sato or the claimed everted prosthesis in claim(s) 18,38 because both prostheses perform the same function of providing recesses for cell ingrowth.

### ***Response to Arguments***

Applicant's arguments filed 6/16/06 have been fully considered but they are not persuasive. Although the Examiner has removed certain rejections, the Examiner was

not persuaded by the Applicant's arguments, but has attempted to simplify issues to focus on less references. Applicant argues that Sato fails to explicitly disclose lifting nodes, but lifts the fibrils. However, since it is known that PTFE is made of interconnected nodes and fibrils it must be inherent the fibrils lift the nodes with them since they are connected. Applicant additionally argues that Sato does not explicitly disclose the force applied to the surface in a direction parallel to the axis. However, it should be noted any application of a rotary brush along the length of the tubular body inherently is going to pass along the axis and would also inherently be parallel to the oriented fibrils. Regarding the rejection over the Dzau patent, the Applicants argue that the prosthesis is made by stretching, however, this irrelevant or a moot point since the claims are not directed to how the prosthesis is made, but to applying a force to the prosthesis. As mentioned above, Dzau discloses that a pressurized fluid is applied to the prosthesis and thus inherently causes the nodes to be lifted.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian E Pellegrino whose telephone number is 571-272-4756. The examiner can normally be reached on M-Th (7am-4:30pm) and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott can be reached at 571-272-4754. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TC 3700, AU 3738

**BRIAN E. PELLEGRINO**  
**PRIMARY EXAMINER**

